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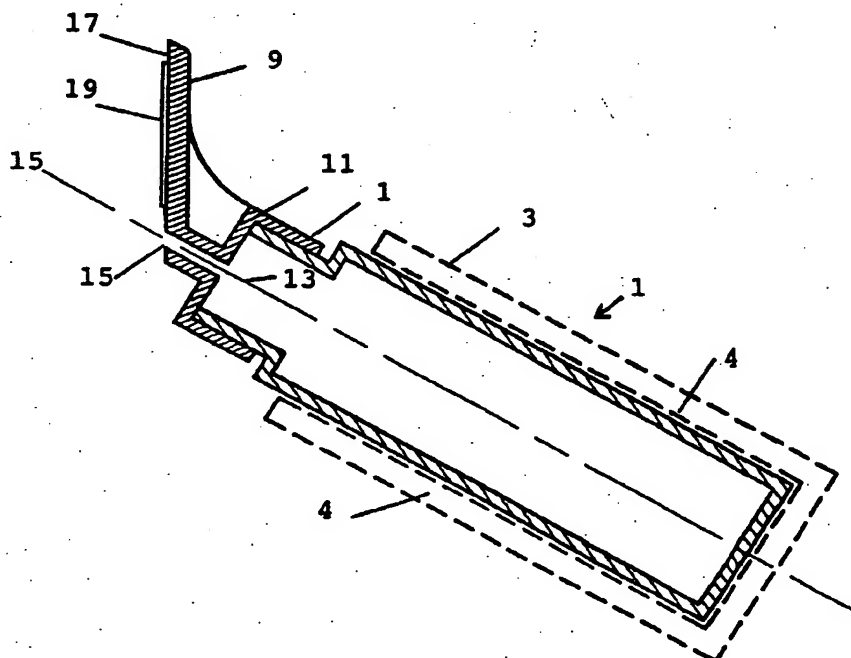
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For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: DEPILATORY WAX APPLICATOR



(57) Abstract: The present invention is related to an applicator (1) comprising a sheath (3) containing a depilatory wax cartridge (5) to which a spatula (9) is attached, the applicator being equipped with means (4) for heating the wax and comprising a communication through an aperture (13) in the spatula (9) with the wax cartridge (5) allowing the wax to flow out from the wax cartridge (5) and to be spread simultaneously by means of the spatula (9) associated therewith, by moving the applicator on the skin.



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DEPILATORY WAX APPLICATORField of the invention

10 [0001] The present invention is related to an applicator for depilatory wax contained in a reservoir which may be arranged in a sheath and which is provided with means for heating the wax. This heating may be carried out either directly by a resistor buried in the mass of  
15 depilatory wax, or externally by a resistor arranged in the sheath intended to receive said reservoir.

Technical background

[0002] It is well known to use depilatory wax, pre-  
20 heated in a basin and applied using a spatula once it has melted.

[0003] In publications US 4 773 784 and US 4 958 951 in the name of Samuel J. Mann, it is explained that the temperature of skin receiving a coat of liquid wax depends  
25 on the thickness of the wax coat applied, the threshold for the pain caused by the heat being at about 44°C. These publications recommend applying the wax as a thin film, preferably not exceeding 0.8 mm. This is obtained with an applicator comprising a reservoir containing the wax, as  
30 well as a distributor roller arranged in communication with the reservoir designed to ensure that the final temperature of the skin, immediately after applying the heated wax, is below the threshold temperature for the pain caused by the heat.

[0004] The use of an applicator roller may be made difficult with certain types of wax, in particular those exhibiting viscosity changes which are relatively abrupt as a function of the temperature with a relatively sharp transition to the liquid state. It is observed that, for waxes of this type, despite the use of an applicator roller, the fluidity of the liquid makes it difficult to control the application of the wax.

[0005] It is probably for this reason that the substitutes for pure beeswax which have been proposed, namely synthetic waxes, have met with little success despite a certain number of specific advantages such as the low cost price, the ease of removal by washing off the residues after depilation, etc.

[0006] Furthermore, the roller, which is necessarily rigid and rectilinear, cannot conform itself to the rounded shape of a leg, for example, thus making a uniform application difficult.

## 20 Aims of the invention

[0007] The main aim targeted by the present invention is that of providing a device which, although it is used by an unqualified person, for example a person wishing to carry out the depilation on himself or herself, avoids the application of a large mass of hot wax onto the skin in the form of a large thickness, due to the fact that the application immediately results in the uniform spreading of said wax.

[0008] The invention is also directed towards achieving good spreading of the wax while avoiding the drawbacks of the solutions recommended hitherto.

Characteristic elements of the invention

[0009] According to the invention, an applicator is proposed comprising a sheath containing a depilatory wax cartridge to which a spatula is attached, this applicator being equipped with means for heating the wax and a communication being provided through an aperture in the spatula with the wax cartridge allowing the wax to flow out from the wax cartridge and to be spread simultaneously by means of the spatula associated therewith, by moving the applicator on the skin.

[0010] The heating means may consist in one or more resistors disposed in the sheath in which the cartridge is housed, which are connectable to an electrical source.

[0011] It is also possible to house a heating resistor directly in the cartridge, which may be connected to a source of electricity.

[0012] Usual, the sheath is heat-insulated to protect the user.

[0013] In general, it is observed that the device according to the invention allows a more uniform spreading while reducing the risks of burns, whatever the type of "wax" used.

[0014] Advantageously, the spatula may have a slightly rounded shape and is relatively deformable so as to adapt itself to the shape of the part of the body, in particular the shape of the legs, which it is desired to treat, this being a solution which it was not possible to achieve with an applicator roller.

[0015] Generally, the cartridges containing wax comprise a stopper which can be screwed on to close them off. After the stopper has been removed, the spatula should be able to be mounted simply by screwing it onto the cartridge. The spatula thus consists of an independent

member comprising a tubular body similar to the shape of a stopper, but comprising at its apex an aperture along the entire diameter of the tubular body, communicating with a lip, the diameter of which is preferably greater than the diameter of the tubular body and which ends at the level of a palette-shaped member being part of the spatula.

[0016] Preferably, this palette-shaped member is grooved to make the wax coming from the cartridge by the effect of gravity easier to spread.

10 [0017] The invention will be described in greater detail by way of illustration with reference to a preferred embodiment of the invention, with no limiting nature.

#### Brief description of the drawings

15 [0018] In the enclosed drawings:

[0019] Figure 1 represents a spatula screwed onto a conventional wax cartridge in a diagrammatic view in top perspective (from above).

20 [0020] Figure 2 represents a bottom view in perspective (from below) corresponding to figure 1.

[0021] Figure 3 is a diagrammatic view in a lateral cross-section of the applicator according to the invention comprising a sheath, the wax cartridge included therein and the spatula screwed onto said wax cartridge.

25 [0022] Figures 4 and 5 represent, respectively, a view in perspective from above and from below of a spatula for a wax reservoir or cartridge.

#### Description of a preferred embodiment of the invention

30 [0023] The applicator denoted by the general reference numeral 1 consists essentially of a sheath 3 of generally parallelepipedal shape.

[0024] The sheath 3 is shaped and sized so as to receive a reservoir in the form of a cartridge 5 containing wax in the solid state at room temperature.

[0025] This reservoir 5 is conventionally equipped with a neck 7. Such cartridges are commercially available and are sold equipped with a stopper screwed onto the neck 7. In practice, the diameter of the neck corresponds substantially to the thickness of the cartridge.

[0026] Conventionally, such a cartridge 5 is introduced into the sheath 3, itself conventionally equipped with an electrical connection and one or more heating resistors. A switch (not represented) causes heating by means of the heating resistor (schematically indicated as member 4) of the wax contained in the reservoir 5.

[0027] It may also be envisaged to bury one or more heating resistors in the mass of wax and to provide an electrical connection to heat the mass of wax.

[0028] Whatever the solution adopted, the sheath 3 should be insulated in order to prevent users from being burned when the wax is hot.

[0029] According to the invention, the previously heated wax is applied using a spreading spatula identified by the general reference numeral 9 which may be mounted, in place of the stopper which has been removed beforehand, by screwing it onto the neck 7 of the cartridge 5.

[0030] To this end, the spatula 9 comprises a tubular body 11 provided with an inner thread 12 (shown partially on Figure 4) matching the corresponding thread on the neck 7 of the cartridge 5, but, unlike a stopper, ending at the top with an aperture 13 arranged along the diameter of the tubular body 11 and communicating with a lip 15, itself ending with palette shaped member 17 of the spatula.

[0031] This palette is itself preferably provided with grooves or ribs 19 to make the wax easier to spread.

[0032] In practice, the applicator is used by preheating the wax up to a viscosity point which allows it to flow easily, and then directly applies the wax which flows by the effect of gravity through the aperture 13 and the lip 15 onto the palette 17.

[0033] The user, even an inexperienced user, has no difficulty in spreading the wax uniformly while avoiding overthicknesses which may cause burns and will spontaneously spread the wax at a suitable speed to avoid being burned by an excess of wax.

CLAIMS

1. An applicator (1) comprising a sheath (3) containing a depilatory wax cartridge (5) to which a spatula (9) is attached, the applicator being equipped with means (4) for heating the wax and comprising a communication through an aperture (13) in the spatula (9) with the wax cartridge (5) allowing the wax to flow out from the wax cartridge (5) and to be spread simultaneously by means of the spatula (9) associated therewith, by moving the applicator on the skin.

2. Applicator according to claim 1, wherein the heating means consist in one or more resistors (4) disposed in the sheath in which the cartridge (5) is housed, which are connectable to an electrical source.

3. Applicator according to claim 1, wherein a heating resistor is housed directly in the cartridge (5), which may be connected to a source of electricity.

4. Applicator according to any of the claims 1 to 3 wherein the spatula (5) has a slightly rounded shape and is relatively deformable so as to adapt itself to the shape of the part of the body, in particular the shape of the legs, which it is desired to treat.

5. Applicator according to any of the claims 1 to 4 wherein the spatula consists of an independent member comprising a tubular body (11) similar to the shape of a stopper, but comprising at its apex said aperture (13) along the entire diameter of the tubular body (11), communicating with a lip (15), the diameter of which is greater than the diameter of the tubular body (11) and which ends at the level of a palette-shaped member (17) of the spatula (9).

6. Applicator according to claim 5 wherein said palette-shaped member (17) is grooved to make the wax

coming from the cartridge by the effect of gravity easier to spread.

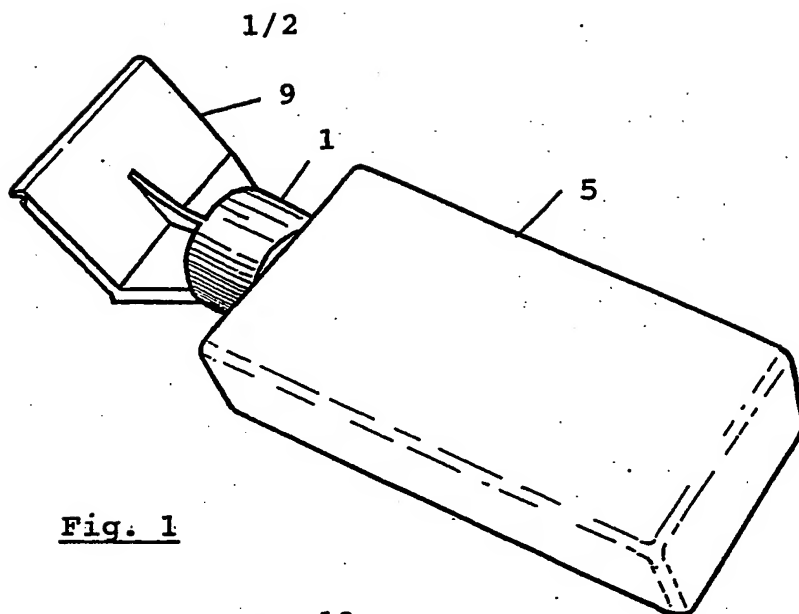


Fig. 1

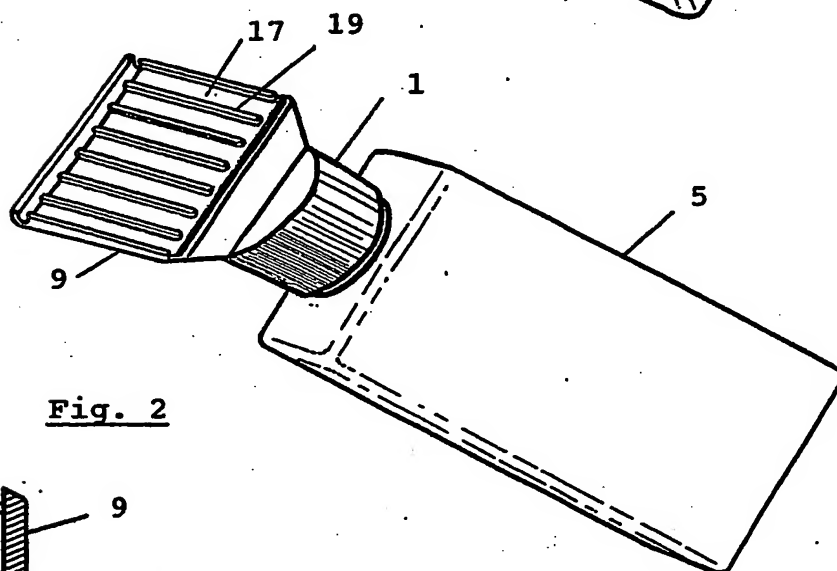


Fig. 2

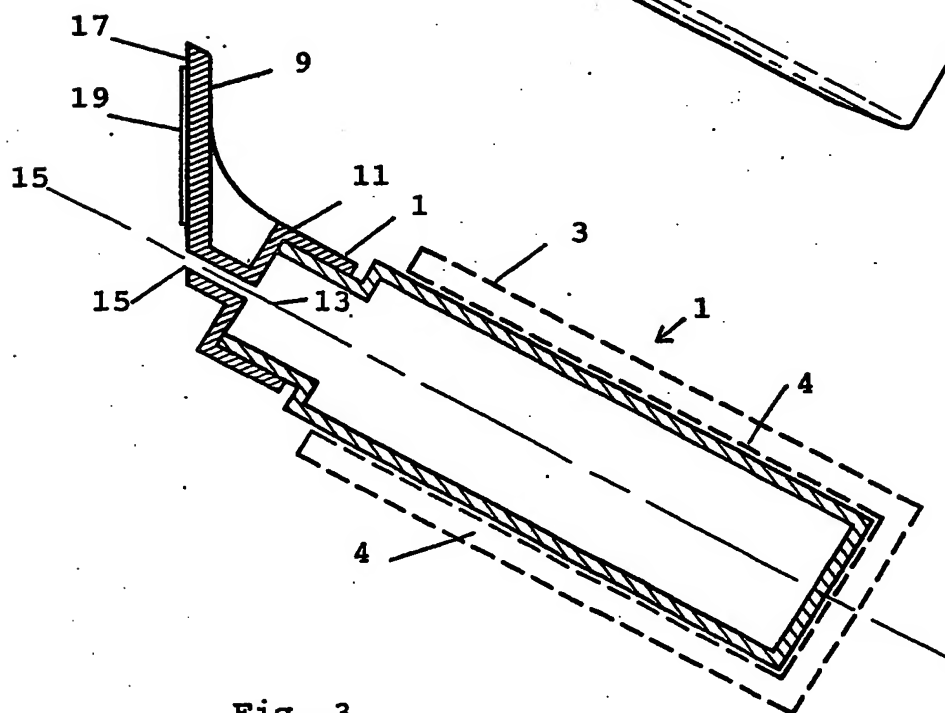
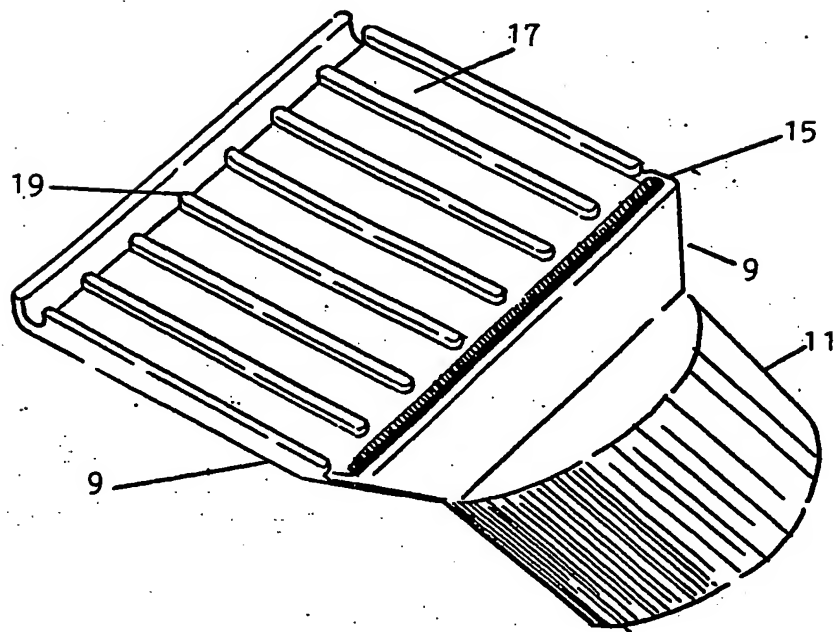
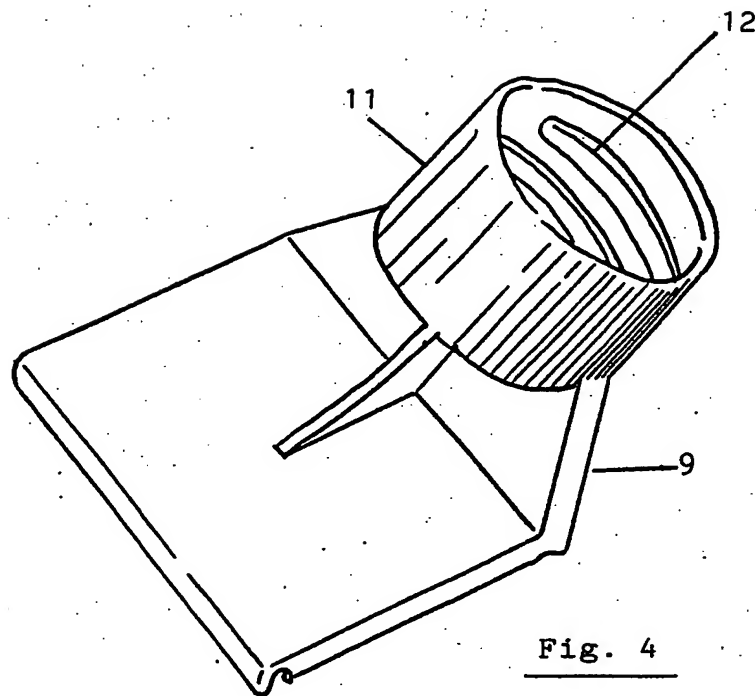


Fig. 3

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A. CLASSIFICATION OF SUBJECT MATTER  
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According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)  
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Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

WPI Data, PAJ, EPO-Internal

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Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	EP 0 592 340 A (SEB S.A.) 13 April 1994 (1994-04-13) column 8, line 56 -column 9, line 34; figures 7-9	1,2,4
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☒ Further documents are listed in the continuation of box C.☒ Patent family members are listed in annex.

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## INTERNATIONAL SEARCH REPORT

International Application No

PCT/BE 01/00178

## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

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